COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

Docket No. 236472000720 PATENT



FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)

Sheet <u>1</u> of <u>7</u>

In the Application of

MICHAEL C. KIEFER and PHILIP J. BARR

Serial No. 08/320,157

Art Unit: Unknown

Filed: 07 October 1994] Examiner: Unassigned

U.S. PATENT DOCUMENTS

Ref. Examiner's Document (If appropriate)

<u>Desig. Initials Number Date Name Class/Subclass Filing Date</u>

FOREIGN PATENT DOCUMENTS

Ref. <u>Desig.</u>	Examiner's Initials	Document <u>Number</u>	<u>Date</u>	Country	Class/Subclass	(If appropriate) <u>Filing Date</u>
1.	are	WO 93/04169	03/04/93	PCT		
2.		WO 94/00572	01/06/94	PCT		
3.		WO 95/00160	01/05/95	PCT ,		
4.		WO 95/00642	01/05/95	PCT ′		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig. Examiner's Initials

5.

N72

Wyllie, "Glucocorticoid-induced thymocyte apoptosis is associated with endogenous endonuclease activation". Nature (1980) 284:555-556.

Examiner: 1/24/96 Date Considered: 11/26/96



FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS

OR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Sheet <u>2</u> of <u>7</u>

In the Application of

MICHAEL C. KIEFER and PHILIP J. BARR

Filed: 07 October 1994

Serial No. 08/320,157

Art Unit: Unknown

Examiner: Unassigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. <u>Desig.</u>	Examiner's <u>Initials</u>	
6.	R72	Kanter et al., "Epidermal growth factor and tumor promoters prevent DNA fragmentation by different mechanisms" <u>Biochem. Biophys. Res. Commun.</u> (1984) 118:392-399.
7.	+	Duke et al., "IL-2 addiction: Withdrawal of growth factor activates a suicide program in dependent T cells" <u>Lymphokine Res.</u> (1986) <u>5</u> :289-299.
8.	-	Tomei et al., "Inhibition of radiation-induced apoptosis <i>in vitro</i> by tumor promoters" <u>Biochem. Biophys. Res. Commun.</u> (1988) <u>155</u> :324-331.
9.	+	Kruman et al., "Apoptosis of murine BW 5147 thymoma cells induced by dexamethasone and γ -irradiation" <u>J. Cell. Physiol.</u> (1991) <u>148</u> :267-273.
10.		Ameisen et al., "Cell dysfunction and depletion in AIDS: The programmed cell death hypothesis" lmmunol.today (1991) 12 :102-105.
11.		Sheppard et al., "The relationship between AIDS and immunologic intolerance" <u>J. AIDS</u> (1992) <u>5</u> :143-147.
12.		Gerschenson et al., "Apoptosis: A different type of cell death" <u>FASEB J.</u> (1992) <u>6</u> :2450-2455.
13.	<u> </u>	Cohen et al., "Apoptosis and programmed cell death in immunity" Ann. Rev. Immunol. (1992) 10:267-293.
14.		Tsujimoto et al., "Cloning of the chromosome breakpoint of neoplastic B cells with the t(14;18) chromosome translocation" <u>Science</u> (1984) <u>226</u> :1097-1099.

Examiner: R	By Wheet	Date Considered:	11/26/96

Docket No. 236472000720 PATENT



FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)

Sheet <u>3</u> of <u>7</u>

In the Application of]	
MICHAEL C. KIEFER and PHILIP J. BARR]	
Serial No. 08/320,157	.] .]	Art Unit: Unknown
Filed: 07 October 1994]	Examiner: Unassigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's <u>Initials</u>	
15.	RTE	Cleary et al., "Cloning and structural analysis of cDNAs for <i>bcl</i> -2 and a hybrid <i>bcl</i> -2/immunoglobin transcript resulting from the t(14;18) translocation" Cell (1986) 47:19-28.
16.		McDonnell et al., "Progression from lymphoid hyperplasia to high-grade malignant lymphoma in mice transgenic for the t(14;18)" Nature (1991) 349:254-256.
17.		Edgington, "Looking death in the eye: Apoptosis and cancer research" Biotechnol. (1993) 11:787-792.
18.	· · ·	Sentman et al., "bcl-2 inhibits multiple forms of apoptosis but not negative selection in thymocytes" <u>Cell</u> (1991) <u>67</u> :879-888.
19.	+	Strasser, "bcl-2 transgene inhibits T cell death and perturbs thymic self-censorship" Cell (1991) 67:889-899.
20.	-	Hockenbery et al., "Bcl-2 functions in an antioxidant pathway to prevent apoptosis" <u>Cell</u> (1993) <u>75</u> :241-251.
21.		Williams et al., "Molecular regulation of apoptosis: genetic controls on cell death" Cell (1993) 74:777-779.
22.		Zhu et al., "Systemic gene expression after intravenous DNA delivery into adult mice" Science (1993) 261 :209-211.
23.	y 	Veis et al., "Bcl-2-deficient mice demonstrate fulminant lymphoid apoptosis, polycystic kidneys, and hypopigmented hair" <u>Cell</u> (1993) <u>75</u> :229-240.

Examiner:	Rose	1 Wheet	Date Considered:	11/26/96	



FORM PTO-1449 (Modified)
LIST OF PATENTS AND PUBLICATIONS
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)

Sheet <u>4</u> of <u>7</u>

MICHAEL C. KIEFER and PHILIP J. BARR

Serial No. 08/320,157

Filed: 07 October 1994

Art Unit: Unknown

Examiner: Unassigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's <u>Initials</u>	
24.	RK	Kiefer et al., "Molecular cloning of a new human insulin-like growth factor binding protein" Biochem. Biophys. Res. Commun. (1991) 176:219-225.
25.		Sanger et al., "DNA sequencing with chain-terminating inhibitors" Proc. Natl. Acad. Sci. USA (1977) 74:5463-5467.
26.		Boise et al., "bc/-x, a bc/-2-related gene that functions as a dominant regulator of apoptotic cell death" Cell (1993) 74:597-608.
27.		Oltvai et al., "Bcl-2 heterodimerizes <i>in vivo</i> with a conserved homolog, Bax, that accelerates programed cell death" <u>Cell</u> (1993) <u>74</u> :609-619.
28.		Zapf et al., "Isolation from adult human serum of four insulin-like growth factor (IGF) binding proteins and molecular cloning of one of them that is increased by IGF I administration and in extrapancreatic tumor hypoglycemia" <u>J. Biol. Chem.</u> (1990) <u>265</u> :14892-14898.
29.		Feinberg et al., "A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity" Anal. Biochem. (1984) 137:266-267.
30.		Chen-Levy et al., "The <i>bcl</i> -2 candidate proto-oncogene product is a 24-kilodalton integral-membrane protein highly expressed in lymphoid cell lines and lymphomas carrying the t(14;18) translocation" Mol. Cell. Biol. (1989) 9:701-710.
31.		Jacobson et al., "Bcl-2 blocks apoptosis in cells lacking mitochondrial DNA" Nature (1993) 361:365-369.

		· · · · · · · · · · · · · · · · · · ·	
Examiner:	Ray Mest	Date Considered: (/	14/96



FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)
Sheet <u>5</u> of <u>7</u>

Filed: 07 October 1994] Examiner: Unassigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

denaturing conditions, a critical reexamination" Biochem. (1977) 16:4743-4751. Thomas, "Hybridization of denatured RNA and small DNA fragments transferred to nitrocellulose" Proc. Natl. Acad. Sci. USA (1980) 77:5201-5205. Barr, "Expression of foreign genes in yeast" Transgenesis (1992) Murray, J.A.H., Wiley & Sons, New York, pp. 55-79. Henderson et al., "Epstein-Barr virus-coded BHRF1 protein, a viral homologue of 82, protects human B cells from programmed cell death" Proc. Natl. Acad. Sci. US (1993) 90:8479-8483. Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of	Ref. <u>Desig.</u>	Examiner's <u>Initials</u>	
denaturing conditions, a critical reexamination" <u>Biochem.</u> (1977) <u>16</u> :4743-4751. Thomas, "Hybridization of denatured RNA and small DNA fragments transferred to nitrocellulose" <u>Proc. Natl. Acad. Sci. USA</u> (1980) <u>77</u> :5201-5205. Barr, "Expression of foreign genes in yeast" <u>Transgenesis</u> (1992) Murray, J.A.H., Wiley & Sons, New York, pp. 55-79. Henderson et al., "Epstein-Barr virus-coded BHRF1 protein, a viral homologue of E.2, protects human B cells from programmed cell death" <u>Proc. Natl. Acad. Sci. US</u> (1993) <u>90</u> :8479-8483. Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes <u>Situ Hybridization. A Practical Approach</u> , D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" <u>Proc. Natl. Acad. Sci. USA</u> (1988) <u>85</u> :9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" <u>Proc. Natl. Acad. Sci. USA</u> (1985) <u>82</u> :74	32.	RH	· · · · · · · · · · · · · · · · · · ·
nitrocellulose" Proc. Natl. Acad. Sci. USA (1980) 77:5201-5205. Barr, "Expression of foreign genes in yeast" Transgenesis (1992) Murray, J.A.H., Wiley & Sons, New York, pp. 55-79. Henderson et al., "Epstein-Barr virus-coded BHRF1 protein, a viral homologue of E 2, protects human B cells from programmed cell death" Proc. Natl. Acad. Sci. US (1993) 90:8479-8483. Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	33.		Lehrach et al., "RNA molecular weight determinations by gel electrophoresis under denaturing conditions, a critical reexamination" <u>Biochem.</u> (1977) <u>16</u> :4743-4751.
Wiley & Sons, New York, pp. 55-79. Henderson et al., "Epstein-Barr virus-coded BHRF1 protein, a viral homologue of E 2, protects human B cells from programmed cell death" Proc. Natl. Acad. Sci. US (1993) 90:8479-8483. Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	34.	·	Thomas, "Hybridization of denatured RNA and small DNA fragments transferred to nitrocellulose" Proc. Natl. Acad. Sci. USA (1980) 77:5201-5205.
2, protects human B cells from programmed cell death" Proc. Natl. Acad. Sci. US (1993) 90:8479-8483. Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	35.		Barr, "Expression of foreign genes in yeast" <u>Transgenesis</u> (1992) Murray, J.A.H., ed., Wiley & Sons, New York, pp. 55-79.
Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, 137-158. Pinkel et al., "Fluorescence in situ hybrization with human chromosome-specific libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142. McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	36.		Henderson et al., "Epstein-Barr virus-coded BHRF1 protein, a viral homologue of Bcl-2, protects human B cells from programmed cell death" Proc. Natl. Acad. Sci. USA (1993) 90:8479-8483.
libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Nat Acad. Sci. USA (1988) 85:9138-9142 . McKearn et al., "Enrichment of hematopoietic precursor cells and cloning of multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	37.		Viegas-Péquignot, "In situ hybridization to chromosomes with biotinylated probes" In Situ Hybridization. A Practical Approach, D.G. Wilkinson, ed., IRL Press, Oxford, pp. 137-158.
multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:74	38.		libraries: Detection of trisomy 21 and translocations of chromosome 4" Proc. Natl.
	39.	<u> </u>	multipotential B-lymphocyte precursors" Proc. Natl. Acad. Sci. USA (1985) 82:7414-

	0 701 1	 	1./.
Examiner:	Kay Pelent	 Date Considered:	4/26/96



FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)
Sheet 6 of 7

In the Application of a land state of the Application of the Application of a land state of the Application of the Applica

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's <u>Initials</u>	
40.	RTE	Nuñez et al., "Deregulated Bcl-2 gene expression selectively prolongs survival of growth factor-deprived hemopoietic cell lines" <u>J. Immunol.</u> (1990) <u>144</u> :3602-3610.
41.		Hockenbery et al., "Bcl-2 is an inner mitochondrial protein that blocks programmed cell death" Nature (1990) 348:334-336.
42.		Cherif et al., "Ordering markers in the region of the ataxia-telangiectasia gene (11q22-q23) by fluorescence <i>in situ</i> hybridization (FISH) to interphase nuclei" <u>Hum. Genet.</u> (1994) <u>93</u> :1-6.
43.	_	Foroud et al., "Localization of an ataxia-telangiectasia locus to a 3-cM interval on chromosome 11q23: Linkage analysis of III families by an international consortium" Am. J. Hum. Genet. (1991) 49:1263-1279.
44.		Kapp et al., "Cloning of a candidate gene for ataxia-telangiectasia group D" Am. J. Hum. Genet. (1992) 51:45-54.
45.		Khati et al., "Genetic heterogeneity of autosomal dominant cerebellar ataxia type 1: Clinical and genetic analysis of 10 French families" Neurology (1993) 43:1131-1137.
46.		Meyn, "Ataxia-telangiectasia, apoptosis and cellular responses to DNA damage: A model" Cancer Genet. (1993) 53:(Abstract no. 1529).
47.	<u></u>	Orr et al., "Expansion of an unstable trinucleotide CAG repeat in spinocerebellar ataxia type 1" Nature Genetics (1993) 4:221-226.

Examiner: Ra	4 Klast	Date Considered:	11/4	/96
				



FORM PTO-1449 (Modified)
LIST OF PATENTS AND PUBLICATIONS
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Sheet <u>7</u> of <u>7</u>

In the Application of

MICHAEL C. KIEFER and PHILIP J. BARR

Serial No. 08/320,157

Filed: 07 October 1994

Art Unit: Unknown

Examiner: Unassigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. <u>Desig.</u>	Examiner's <u>Initials</u>	
48.	RNE	Kennedy, "Prevention of carcinogenesis by protease inhibitors" <u>Cancer Res.</u> (1994) <u>54</u> :1999s-2005s.
49.		Lam et al., "Evidence that BCL-2 represses apoptosis by regulating endoplasmic reticulum-associated Ca ²⁺ fluxes" <u>Proc. Natl. Acad. Sci. USA</u> (1994) <u>91</u> :6569-6573
50.		Reed et al., "Antisense-mediated inhibition of <i>BCL2</i> protooncogene expression and leukemic cell growth and survival: Comparisons of phosphodiester and phosphorothioate oligodeoxynucleotides" <u>Cancer Res.</u> (1990) <u>50</u> :6565-6570.
51.	<u> </u>	Yonehara et al., "A cell-killing monoclonal antibody (ANTI-Fas) to a cell surface antigen co-downregulated with the receptor of tumor necrosis factor" <u>J. Exp. Med.</u> (1989) 169:1747-1756.

Examiner: Lay When

Date Considered: 1/26/9

COMMISSIONER OF PATENTS AND TRADEMARKS

Washington, D.C. 20231

FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)
Sheet 1 of 2

In the application of:

Michael C. Kiefer et al.

Serial No.: 08/3

08/320,157

Filing Date:

07 October 1994

NOVEL APOPTOSIS-

MODULATING PROTEINS, DNA ENCODING

THE PROTEINS AND METHODS OF USE

THEREOF

Examiner: Unassigned

Group Art Unit: 1806

FOREIGN PATENT DOCUMENTS

Ref. Examiner's Document Class/ (If appropriate)

Design. Initials Number Date Country Subclass Filing Date

1. VW 95/05750 03/02/95 PCT

Examiner: Ray Valuet Date Considered: 11/26/96

COMMISSIONER OF PATENTS AND TRADEMARKS

Washington, D.C. 20231

FORM PTO-1449 (Modified)

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary) Sheet 2 of 2

In the application of:

Michael C. Kiefer et al.

Serial No.:

08/320,157

Filing Date:

07 October 1994

For

NOVEL APOPTOSIS-

MODULATING PROTEINS, DNA ENCODING

THE PROTEINS AND METHODS OF USE

THEREOF

Examiner: Unassigned

Group Art Unit: 1806

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. <u>Design.</u>	Examiner's <u>Initials</u>	
2.	RH	Chittenden et al., "Induction of apoptosis by the Bcl-2 homologue
		Bak" Nature (1995) 347:733-736.
3.	RZE	Farrow et al., "Cloning of a bcl-2 homologue by interaction with
•	0	adenovirus E1B 19K" Nature (1995) 374:731-733
4.	1/2	Kiefer et al., "Modulation of apoptosis by the widely distributed
•		Bcl-2 homologue Bak" Nature (1995) 374:736-739.

Examiner:	Ray	VElsert	Date Considered:	11/26	196
-			_	1	